

R E M A R K S

Claims 1-15 were considered in the Office Action. Claims 2, 3, and 13 stand objected to for informality (although no statutory authority supporting the objection is cited).

5 Claims 5-11 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for not specifying the "purpose of the interconnection of the comparator with the timing control logic and the capacitor..." or what is being compared by the comparator. Claims 1-15 stand rejected under 35 U.S.C.
10 102(b) as being anticipated by Shimizu et al., U.S. Patent 5,524,103.

The Applicant believes that the currently pending claims are in full compliance with the requirements of 35 U.S.C. 112 and are not anticipated by or obvious over the cited
15 reference. Applicant respectfully requests reconsideration.

Claim objections

Applicant continues to believe that one with ordinary skill in the art would understand that references to "the amount" in claims 2, 3, and 13 refer to "a variable voltage
20 amount" that appears earlier in the claims. However, in order to expedite prosecution of the present application, claims 2, 3, and 13 have been amended as suggested by the Examiner, along with claims 1 and 12 which contained similar terminology.

25 Claim rejections - 35 U.S.C. 112

Applicant respectfully disagrees with the Examiner's statement that claims 5-11 are unclear. Applicant is unaware of any statutory requirement that functional language setting

forth the purpose of elements or their interconnections be included in the body of apparatus claims. The elements and their interconnections are clearly laid out in the apparatus claims. Related explanations of function and benefits of an exemplary embodiment are found in the Detailed Description.

The Examiner referred to the interconnection of the comparator with the timing control logic and the capacitor of claims 5-10. Applicant notes that claims 5-7 recite limitations relating to an analog duration comparator, and claims 8-10 recite limitations relating to an analog temporal placement comparator, and these comparators may operate independently. The functional description of these elements are given in the Detailed Description with reference to the drawings.

For example, an exemplary embodiment the analog duration comparator 201 and duration control capacitor 203 are described on page 9 of Applicants' specification. The timing control logic 133 is described on page 10 of Applicants' specification. The variable voltage amount 125 is coupled in one exemplary embodiment with the optical pulse generator 103 through the analog duration comparator 201 and a state device 221 as described from page 9, line 27 through page 10, line 4 of Applicants' specification and illustrated in FIGS. 1 and 2A. Although the claimed invention is not limited to this exemplary manner of coupling the variable voltage amount with the optical pulse generator, the function and purpose of the claimed elements and interconnections thereof for one exemplary embodiment are clearly given in the Applicants' specification.

With respect to the comparator of claim 11, although a signal connected to one of the pair of inputs is not recited, the claim elements and interconnections that are recited are clear, and the comparator clearly compares whatever signals

are connected to the pair of inputs. Applicant respectfully disagrees that a statutory requirement exists to identify the signals connected to both inputs of the comparator of claim 11.

5 Again, Applicant believes that the claimed elements and their interconnections are clearly laid out in claims 5-11, and that the currently pending claims are fully compliant with the requirements of 35 U.S.C. 112.

10 If the Examiner wishes to maintain the rejection, Applicant respectfully requests that the Examiner indicate the statutory basis for requiring that apparatus claims set out the purpose or function of the claimed elements and their interconnections in the body of the claims.

Claim rejections - 35 U.S.C. 102

15 Claims 1-15 stand rejected under 35 U.S.C. 102(b) as being anticipated by Shimizu et al., U.S. Patent 5,524,103. The Applicant believes that the currently pending claims are allowable over Shimizu due to at least the highlighted differences in the independent claims below:

20 1. An apparatus comprising:

optics adapted for focusing on a layer of an information storage media;

25 a symmetrical optical pulse generator, coupled with the layer through the optics, for generating a train of optical pulses, wherein each pulse is substantially symmetrical and has a respective temporal placement within the train and has a respective pulse duration;

30 **a generator of an analog duration control voltage having a variable voltage amount, coupled with the optical pulse generator for varying the respective pulse duration of each**

substantially symmetrical pulse in accordance with the variable voltage amount.

12. A method comprising:

providing optics adapted for focusing on a layer of an information storage media and a symmetrical optical pulse generator, coupled with the layer through the optics;

generating a train of optical pulses, wherein each pulse is substantially symmetrical and has a respective temporal placement within the train and has a respective pulse duration;

generating an analog duration control voltage having a variable voltage amount for varying the respective pulse duration of each substantially symmetrical pulse in accordance with the variable voltage amount.

Claims 1 and 12 both require an analog duration control voltage for varying the pulse duration in accordance with the variable voltage amount. Shimizu, in contrast, discloses a **digital** pulse width compensator, as illustrated in FIG. 13 and described in Shimizu, col. 7, lines 31-43:

"As shown in FIG. 13, the pulse width setter 12 includes, for example, a delay element 71 having a plurality of output taps from which output signals are provided with given delay times, a selector 72 for selecting an output from the output taps of the delay element 71 according to a compensating instruction from the pulse width compensator 11, and an AND circuit 73 for ANDing the output from the selector 72 and the NRZ code 23 input to the delay element 71.

As shown in FIG. 13, the laser driver 14 is provided, for example, in the form of a current switch configuration, in which switching is effected in response to the value of the record code 24, to energize or deenergize a semiconductor laser 77."

Shimizu does disclose that the pulse width compensator 11 also controls the record light power using the power setter 13 (col. 8, lines 35-38). As illustrated in FIG. 13 and described in Shimizu, col. 7, lines 44-50, the power setter 13 uses the digital instruction from the pulse width compensator 11 to form an analog record light power control signal:

"The power setter 13 includes a transistor 75 connected in series to the semiconductor laser 77 for setting the driving current of the semiconductor laser 77, a resistor 76 connected in series with the transistor 75, and a D-A converter 74 for converting the value of an instruction from the pulse width compensator 11 from a digital form to an analog form to set the base potential of the transistor 75."

Clearly, Shimizu does not disclose or suggest an "analog duration control voltage having a variable voltage amount for varying the respective pulse duration of each substantially symmetrical pulse in accordance with the variable voltage amount". To anticipate a claim for a patent, a single prior source must contain all its essential elements. Hybritech, Inc. v. Monoclonal Antibodies, Inc., 231 USPQ 81, 90 (Fed. Cir. 1986).

The dependent claims 2-11 and 13-15 depend ultimately upon independent claims 1 and 12 which are allowable over the cited art as discussed above. Because the dependent claims depend on allowable independent claims, they are likewise in condition for allowance. However, the dependent claims are independently allowable at least in that they recite particular features which, when combined with the elements of the independent claims, are not disclosed or suggested in the cited reference.

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In view of the above, all of the claims are believed to be in condition for allowance, and the Applicant respectfully requests that a timely Notice of Allowance be issued.

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Respectfully submitted,
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